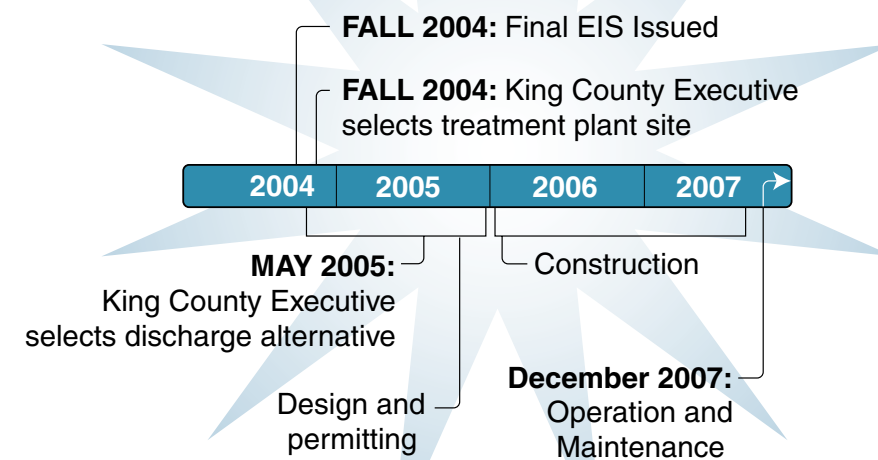


NEXT STEPS:

- 1. King County will begin preliminary engineering design of the treatment plant on the city-owned site.**
 - We will conduct field studies, including survey work and geotechnical work for preliminary design.
 - We will begin work on the site layout and design concept, which will be introduced at the Jan. 26 community meeting. The design will be available for review by the public in Spring 2005.
- 2. We will continue to seek funding for the wetlands enhancement discharge alternative for five months. We will:**
 - Enter a formal agreement with the state Department of Fish and Wildlife.
 - Seek and formalize agreements with funding partners.
 - Identify and seek letters of support from other partners to support grant applications.
 - Refine cost estimates, looking for innovative ways to reduce costs.
- 3. We will continue to conduct outreach to the public, as well as with property owners, neighbors and other interested parties.**
 - By May 2005, county staff will return to the City Council with a recommended discharge alternative.
 - A community meeting is planned in Spring 2005 to share the treatment plant design and discharge alternative.

PROJECTED CARNATION WASTEWATER TREATMENT FACILITY TIMELINE



There will be opportunities for public involvement at every stage of the project.



King County
Department of Natural Resources and Parks
Wastewater Treatment Division
201 S. Jackson St., KSC-NR-0505
Seattle, WA 98104-3855

CARNATION WASTEWATER TREATMENT FACILITY

COMMUNITY MEETING

JAN. 26, 2005, 6:30-8:30 P.M.

The information in this newsletter is available on request in accessible formats by calling 206-296-8361 or 711 (TTY).

WHERE CAN I GET MORE INFORMATION OR LET YOU KNOW MY OPINION?

For more information on the treatment plant and discharge options, contact the King County Carnation project team by:

- Calling the project information line at **206-263-5212** or toll-free at **1-800-325-6165 ext. 35212**
- Sending an e-mail message to CarnationWWTP@metrokc.gov
- Checking the Web site at <http://dnr.metrokc.gov/WTDCarnation/>

For information on the local sewage collection system, contact Bill Brandon, City Manager for the City of Carnation, at **425-333-4192** or check the Web at www.ci.carnation.wa.us.

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King County

CARNATION WASTEWATER TREATMENT FACILITY PROJECT UPDATE

January 2005

Dear Community Members:



After two years of careful analysis, close consultation with the City of Carnation, and public review, I have decided to follow the City's recommendation to locate the Carnation Wastewater Treatment Facility within the city limits at the western end of Entwistle Street.

We carefully evaluated three discharge alternatives in our draft and final environmental impact statements: upland discharge, river outfall and wetlands enhancement. Based on the environmental review and cost considerations, we eliminated the upland discharge alternative from further consideration.

I have directed King County staff to carry forward both the river and wetland discharge alternatives for more study. The river outfall is a proven technology and the lowest cost alternative. However, the wetlands enhancement alternative offers the best use of reclaimed water produced by the plant to enhance wildlife habitat in the Stillwater Wildlife Area. I did not select the wetlands alternative outright because of cost considerations. Preliminary estimates show it would cost \$2.5 million more than the river outfall. We cannot justify this expense in today's budget climate when a viable alternative exists. However, county staff will spend the next five months working diligently to develop partnerships and find grants to make wetlands enhancement an environmental amenity and an economically viable alternative.

The City of Carnation has contracted with King County to design, build, operate and maintain the treatment facility. The new wastewater treatment facility will serve the city and its urban growth area, as defined in the city's comprehensive plan.

Because King County will be required to ensure the facility meets all applicable regulations, I am responsible for making the siting decision. The decision reflects consultation with the City of Carnation and carefully considered comments from community members. It is based on the analyses in the environmental impact statement and other factors—including cost, community considerations, engineering, and policy issues.

King County is committed to protecting public health and the environment. We have provided safe, environmentally sound wastewater treatment in the central Puget Sound region for 40 years. We are committed to being a good neighbor and an asset to the area. Your involvement will continue to be important in the decision and design processes.

Sincerely,
Ron Sims, King County Executive

STAY INVOLVED ...

Come to the next public meeting!

Come learn more about the treatment plant site layout and the river and wetland enhancement discharge alternatives.

**Wednesday, Jan. 26, 2005
6:30 - 8:30 P.M.**

**(Presentation at 7 P.M.)
Tolt Middle School
Multipurpose Room
3740 Tolt Ave., Carnation**

Clean water— a sound investment.

Clean water— a sound investment.

Clean water— a sound investment.

Clean water— a sound investment.

CARNATION SELECTED WASTEWATER TREATMENT FACILITY

■ ■ SELECTED SYSTEM DESCRIPTION

In the United States, most treatment plants treat wastewater to the secondary level, a level of treatment required under the federal Clean Water Act and other laws.

The Carnation wastewater treatment plant will exceed those standards by using an advanced treatment process called a membrane bioreactor. This process will produce treated water that will also meet or exceed the state's Class A reclaimed water standards. That standard means the reclaimed water has nearly unrestricted uses, including human contact, but is not considered safe for drinking.

The Carnation wastewater treatment system will be composed of a treatment plant, conveyance pipeline and discharge location. The plant will initially treat about 400,000 gallons of wastewater per day. The capacity could be expanded to treat about 450,000 gallons per day to meet planned growth. Proposed construction of the facility will begin in mid-2006. The plant is expected to begin operation in late 2007.

THE TREATMENT PLANT

The treatment plant will be on city-owned property within city limits at the west end of Entwistle Street. The city-owned site is 10 acres and consists of two parcels (see map at right). Siting of the facility will be focused on the north parcel because of floodplain concerns on the south parcel. The city also plans to build its wastewater vacuum station on the site.

Two conveyance routes and two discharge locations remain under consideration: river discharge and wetlands enhancement.

RIVER DISCHARGE

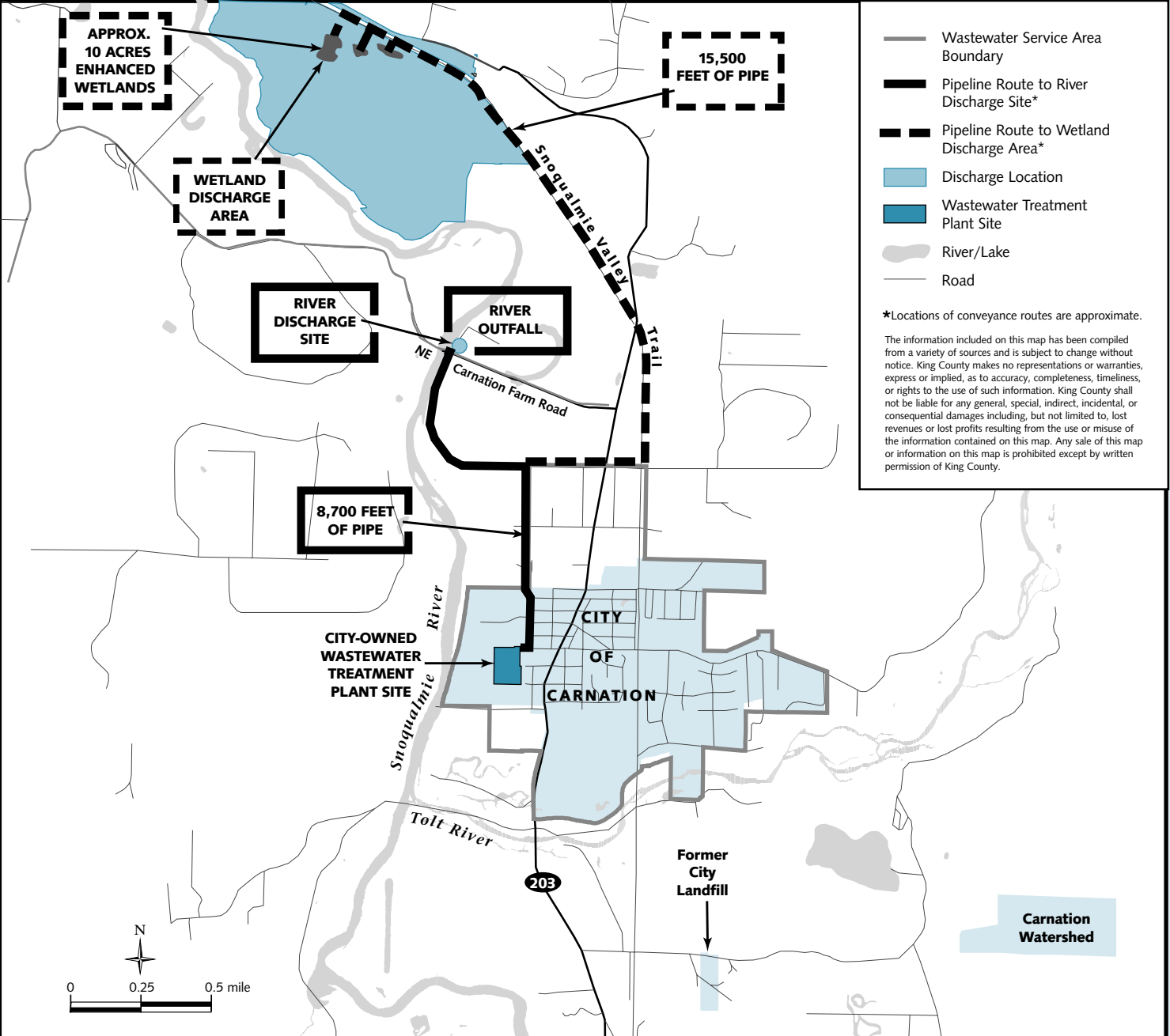
Under the river discharge alternative, highly treated water from the plant would be discharged to the Snoqualmie River at the Carnation Farm Road Bridge about a mile north of Carnation. An 8- to 10-inch-diameter pipeline would run about 8,700 feet from the treatment plant site to the river.

A river outfall would discharge the highly treated effluent to the river through a subsurface diffuser—a pipe with one or more holes below the water surface. An 8- to 10-inch diameter pipeline would lie on the river bottom and extend to the middle of the river.

WETLANDS ENHANCEMENT DISCHARGE

Under the wetlands discharge alternative, reclaimed water from the treatment plant would be used to enhance wetlands in the state's Stillwater Wildlife Area, about two miles north of Carnation. This alternative would enhance habitat for native plants, aquatic life, birds and wildlife. State regulations may require 24-hour emergency storage at the treatment plant to carry out this alternative. The conveyance pipeline would run 15,500 feet from the city-owned site to the Stillwater Wildlife Area.

Wetlands creation or enhancement could consist of introducing reclaimed water to existing low areas in either former agricultural fields or existing wetlands. The low areas could also be excavated to increase the depth and water surface area and extend the period water covers the area. Some wetlands would also be enhanced by adding native plantings.



HOW WAS THE DECISION MADE?

Working with the City of Carnation, a community advisory committee and the public, King County considered several potential treatment plant sites and discharge locations. Eventually, two treatment plant sites, three discharge alternatives (upland, river and wetlands), and six conveyance routes were evaluated in the environmental impact statement, or EIS. The final EIS, released in October 2004, responded to agency and public comments and contained scientific study of the alternatives.

Environmental considerations are very important in this decision, so the EIS for the treatment facility was an essential document in the process. However, the decision process also outlines four other factors to be considered: cost, engineering, community and policy issues. The decision process and timeline adopted by the City Council provided for the full council participation in the process and many opportunities for public comment.

WHY WERE THE TREATMENT PLANT SITE AND DISCHARGE ALTERNATIVES CHOSEN?

TREATMENT PLANT SITE

Either the city-owned site or the Weckwerth site would be a satisfactory location for the treatment plant. However, the city-owned site offers several advantages:

Cost – Building the plant at the city-owned site would have a total project cost of about \$2 million less than the cost of building the plant at the Weckwerth site.

Community considerations – The city-owned site is larger and may provide for better visual screening. The site also offers several options for access, whereas access to the Weckwerth site is limited.

DISCHARGE ALTERNATIVES

1. Upland discharge was eliminated for two main reasons:

Cost – Upland discharge is the most costly of the discharge alternatives in all cost categories. Land acquisition and capital costs would be an estimated \$3 million higher than they would be for the river discharge alternative. Operation and maintenance costs would also be higher.

Environmental – The final EIS notes that the potential long-term operating impacts of upland discharge could include groundwater mounding because of low permeability of subsurface soils.

2. River discharge

The river discharge alternative is one of the most widely used discharge methods in the United States. Most if not all treatment plants on the Snoqualmie River use this discharge method. The river outfall is satisfactory in all decision factor categories.

Cost – The river discharge is the least costly of the three discharge alternatives. Capital costs for the river outfall and associated conveyance system are \$1.6 million (versus \$4.1 million for the wetlands enhancement and its conveyance pipe).

Environmental - The final EIS notes that all discharge alternatives would have short-term construction and long-term operating impacts that we could minimize with mitigation measures. The final EIS notes that the river discharge alternative would have greater potential to adversely impact spawning habitat for chinook salmon than the wetland discharge alternative.

3. Wetlands enhancement discharge

The wetlands alternative offers several clear community and policy advantages.

However, it costs much more than the river discharge alternative.

Cost – The wetlands alternative is estimated to be \$2.5 million more than the river discharge alternative. Total capital costs would be \$4.1 million for the wetlands alternative, including the following main elements:

- Wetlands construction and native plantings-\$1.2 million
- Conveyance pipe-\$2.25 million
- Emergency storage at the treatment plant-\$660,000.

The wetlands alternative does provide opportunities for grant funding and partnerships not available for the river outfall that could significantly reduce these costs.

Environmental – The final EIS notes that all discharge alternatives would have short-term construction and long-term operating impacts that we could minimize with mitigation measures. The wetland alternative would enhance wetlands and wildlife habitat in areas once disturbed or eliminated by past agricultural practices.

Community factors – The wetlands alternative would enhance an existing wetlands habitat and affect fewer people during construction and operation, compared with the other discharge alternatives.

Policy – The wetlands alternative offers opportunities for building partnerships, water reuse and habitat enhancement that are not associated with the other discharge alternatives.

Wetlands enhancement would involve the state Department of Fish and Wildlife as a partner. Several nonprofit organizations have expressed interest in contributing resources to the habitat restoration project. No potential partnerships have been identified for the other discharge alternatives.

